

REMARKS

Status of the Claims

Claims 1 and 4-9 are pending in the application. Claim 1 is currently amended. Reconsideration and allowance of all of the pending claims is respectfully requested.

New matter is not being introduced into the Application by way of this amendment. The amendment to claim 1 is supported, for example, at page 10, paragraphs [0022] and [0023] of the specification. For example, at paragraph [0022] it is mentioned that the cover composition may be composed of up to 40% of another thermoplastic elastomer or ionomer resin. In addition, at paragraph [0023] it is mentioned that additional additives such as titanium dioxide, etc. may also be present. In Examples 1-8 titanium dioxide is present at 4%. The nonionic cycloaliphatic diisocyanate is therefore disclosed at an amount of 56% or greater based on the total weight of the cover based on Examples 1-8 and paragraphs [0022] and [0023]. However, the Applicants respectfully submit that depending on the concentration of additional additives, for example those recited in paragraph [0023], the nonionic cycloaliphatic diisocyanate may be present at amounts even lower than 56%. Accordingly, no new matter is introduced.

This amendment is directly responsive to the assertions made by the Office in the outstanding final Office Action of April 6, 2006 and places the Application into a better condition for allowance. Accordingly, entry of this amendment under the provisions of 37 C.F.R. 1.116 is fully warranted, and is respectfully requested.

Claim Rejections - 35 U.S.C. §103

At page 2 of the Office Action, the rejection of claims 1, and 4-9, under 35 U.S.C. §103(a) as unpatentable over Ichikawa '325 (U.S. Patent No. 6,582,325) is maintained. For the following reasons, this rejection is respectfully traversed.

The cover of Ichikawa '325 is the reaction product of a thermoplastic polyurethane elastomer with dicyclohexylmethane-4,4'-diisocyanate. See Ichikawa '325 column 2, lines 62-65. Ichikawa '325 does not disclose or suggest using a nonionic cycloaliphatic diisocyanate as a base resin in their cover compositions. Ichikawa '325 expressly states that their cover is a material that is obtained by subjecting a thermoplastic polyurethane elastomer to a crosslinking reaction with dicyclohexylmethane-4,4"-diisocyanate. See Ichikawa '325 column 2, lines 18-21.

In the present invention, the cover is not the product of a crosslinking reaction with a thermoplastic polyurethane elastomer and a polyisocyanate, but is a polyurethane itself. In the present invention the thermoplastic polyurethane elastomer is not modified with a diisocyanate as Ichikawa '325 discloses. Therefore, Ichikawa '325 does not disclose or suggest the limitation of using a nonionic cycloaliphatic diisocyanate as a base resin as recited in present claim 1.

In the present invention, the abrasion resistance of the golf ball cover has good characteristics without additionally reacting it with a diisocyanate compound as in Ichikawa '325. In addition, Ichikawa '325 does not disclose or suggest a core that has a deformation amount of 2.5 to 4.5 mm when applying from an initial load of 98 N to a final load of 1275 N on the core, and the golf ball has a deformation amount of 2.4 to 4.0 mm, when applying from an initial load of 98 N to a final load of 1275 N on the golf ball, as presently claimed.

In order to more clearly distinguish the present invention from Ichikawa '325, claim 1 is currently amended to recite that the nonionic cycloaliphatic diisocyanate base resin is present in an amount greater than 56% by weight based on the total weight of the cover. Since Ichikawa '325 uses a cycloaliphatic diisocyanate as a crosslinking agent, it is only used in extremely low amounts. Ichikawa '325 specifically states that the dicyclohexylmethane diisocyanate is present in an amount of between 0.05% and 10%, and most preferably from 0.2% and 5%. See Ichikawa '325 column 3, lines 51-56. Ichikawa '325 also specifically mentions that using the dicyclohexylmethane diisocyanate at more than 10% by weight would produce a reaction product that would experience substantial yellowing with time, and would have degraded thermoelastic properties and resilience. See Ichikawa '325, column 3, lines 59-62.

Accordingly, Ichikawa '325 does not disclose or suggest using a nonionic cycloaliphatic diisocyanate as a base resin in an amount greater than 56% by weight based on the total weight of the cover as presently claimed. Ichikawa '325 uses a nonionic cycloaliphatic diisocyanate in extremely low amounts (consistent with its use as a crosslinking agent), and expressly teaches away from using the cycloaliphatic diisocyanate in amounts greater than 10%.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03. Since the prior art does not disclose all of the limitations of the present claims, it is respectfully submitted that claims 1 and 4-9 are presently allowable over the prior art. For the above reasons, it is respectfully suggested that this rejection should be withdrawn.

Conclusion

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance indicating that each of the pending claims 1 and 4-9 are allowable at present.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact J. Mark Konieczny (Reg. No. 47,715) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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